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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/714,848

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Koji Maekawa

8014-1071

3156

466

7590

10/12/2006

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EXAMINER

NGUYEN, CHAU N

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/714,848

Applicant(s)

MAEKAWA ET AL.

Examiner

Chau N. Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-19 is/are rejected.
- 7) ☒ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 20 and 21 are objected to because of the following informalities:  
in claim 20, line 4, change "conductor the" to --the conductor--, and  
in claim 21, line 3, change "conductor the" to --the conductor--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 and 4-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Figures 1-3 of Applicant's Admitted Prior Art (AAPA) in view of Taylor et al. (5,430,256).

Figures 1-3 of AAPA discloses an electric cord comprising a first end which electrically connects to a vibrator, a second end which is an input terminal to which a drive signal for driving the vibrator is inputted (see specification, page 1 line 18 through page 2 line 9), wherein the electric cord is formed between the first end and the second end by a plurality of wire rods (1b), the plural wire rods at least one of twisted, woven, and bundled together, each of the wire rods (1b) is formed by a plurality of wires (1a), the plural wires (1a) at least one of twisted, woven, and bundled together, each of the wires (1a) comprises a plurality of uninsulated core threads (11) and a conductor (12) wound on the core threads, and the plurality of wires flow the same electric current. Figures 1-3 of AAPA also discloses the conductor being a rectangular conductor having a rectangular section (re claims 5, 6, and 12), the cord being an electric cord which is used as a signal input line for a voice coil (re claim 7), the interior surface of the conductor directly contacting the

center core (re claim 13), and the wire rods being positioned adjacent and being bundled together (re claim 14).

Figures 1-3 of AAPA does not disclose the surface of the conductor (12) (re claims 1, 8 and 9) or the external side of the conductor (re claim 4) being covered with an insulator so that the respective wires (1a) are electrically insulated from each other. Taylor et al. discloses an electric cord (Figs 1-2) comprising a plurality of conductors (10), wherein the surface of each conductor is covered with an insulator (12) so that respective conductors (10) are electrically insulated from each other. Taylor et al. discloses that in the case of an uninsulated multistranded conductor of the known art, the fact of its uninsulation causes it to behave as though it is a solid conductor of a given overall gauge, and the audio signal is subjected to skin effect resulting in a negative alteration of the audio signal. Furthermore, uninsulated stranded conductors are subject to the effects of the corrosive atmosphere. As the wires aged, the audio signal is deteriorated (col. 1, lines 53-63).

Accordingly, it would have been obvious to one skilled in the art to apply the teaching of Taylor et al. in the electric cord of Figures 1-3 of AAPA by covering the surface of the conductor (12) of each wire (1a) with an insulator to improve the signal transmission and to protect the conductor as taught by Taylor et

al. It would also have been obvious to one skilled in the art to use enamel as the insulator for the modified electric cord of Figures 1-3 of AAPA since enamel is well-known in the art for being used to cover electric conductor (re claim 10).

The modified Figures 1-3 of AAPA also discloses the insulator covering an entire exterior surface of the conductor (re claim 11), the insulator covering the first wire directly contacting the insulator covering the second wire (re claim 15), at one end of the wire rods for attachment to an input terminal of a frame associated with a voice coil (re claim 16), the insulator being a resin (re claim 17), there being three rods positioned adjacent each other and electrically isolated from each other, and the three wires positioned adjacent each other to form a wire rod (re claim 18), and a minimum unit of each wire being the core thread (re claim 19).

***Allowable Subject Matter***

4. Claims 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, alone or in combination, does not teach or suggest an electric cord comprising all the features as recited in the claims and in

combination with the conductor being a flat plate wound on a surface of the plurality of core threads and the insulator covering all sides of the conductor (re claim 22) such that windings of the conductor on the surface of the core threads are electrically insulated from each other (re claims 20 and 21).

### ***Response to Arguments***

6. Applicant's arguments filed Aug. 24<sup>th</sup> 2006 have been fully considered but they are not persuasive. Applicant argues that it is impossible to replace the insulated wire 10 of Taylor et al. with the wire 2a of AAPA since the wire 10 of Taylor is a single conducting wire while the conductor 12 of AAPA is not a wire. This argument is not found persuasive because the Office Action does not replace the insulated wire 10 of Taylor et al. with the wire 2a of AAPA, instead the Office Action provides an insulator over the conductor 12 or over the wire 2a, and the conductor 12 of AAPA is a wire.

### ***Summary***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Chau N Nguyen  
Primary Examiner  
Art Unit 2831